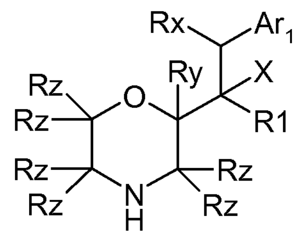
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Previously presented): A compound of formula (I)



(I)

wherein,

X is OH, C1-C4 alkoxy, NH_2 or NH(C1-C4 alkyl);

Rx is H or C1-C4 alkyl;

Ry is H or C1-C4 alkyl;

each Rz group is independently H or C1-C4 alkyl, with the proviso that not more than 3 Rz groups may be C1-C4 alkyl;

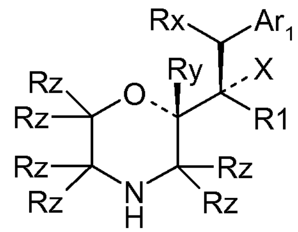
R1 is C1-C6 alkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkylthio optionally substituted with 1, 2 or 3 fluorine atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 fluorine atoms, C3-C6 cycloalkoxy, C1-C4 alkylsulfonyl, cyano, -CO-O(C1-C2 alkyl), -O-CO-(C1-C2 alkyl) and hydroxy; C2-C6 alkenyl optionally substituted with 1, 2 or 3 halogen atoms; C3-C6 cycloalkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl, wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; C4-C7 cycloalkylalkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl, wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; or CH_2Ar2; and

Ar1 and Ar2 are each independently a phenyl ring or a 5- or 6-membered heteroaryl ring, each of which is optionally substituted with 1, 2 or 3 substituents depending upon the number of available substitution positions, each independently selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, and hydroxyl, and/or with 1 substituent selected from the group consisting of pyridyl, thiophenyl, phenyl, benzyl, and phenoxy, each of which is optionally ring-substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, carboxy, nitro, hydroxy, cyano, -NRR, -CONRR, SO_2NRR, and SO_2R; and

each R is independently H or C1-C4 alkyl;

or a pharmaceutically acceptable salt thereof.

2. (Previously presented): A compound according to claim 1 of formula (II)



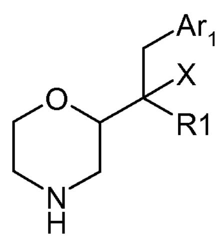
(II)

wherein, X, Rx, Ry, Rz, R1 and Ar1 are as defined for formula (I) in claim 1; or a pharmaceutically acceptable salt thereof.

3. (Previously presented): A compound as claimed in claim 1 or 2, wherein X is OH.

4 -13. (Cancelled)

14. (Previously presented): A compound according to claim 1 of formula (III)



(III)

wherein, X, R1 and Ar1 are as defined for formula (I) in claim1; or a pharmaceutically acceptable salt thereof.

15. (Previously presented): A compound according to claim 14 wherein:

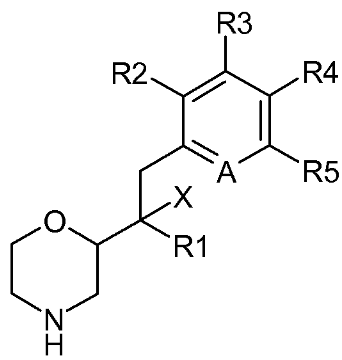
X is OH or NH_2;

R1 is C1-C6 alkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkylthio optionally substituted with 1, 2 or 3 fluorine atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 fluorine atoms, C3-C6 cycloalkoxy, C1-C4 alkylsulfonyl, cyano, -CO-O(C1-C2 alkyl), -O-CO-(C1-C2 alkyl), and hydroxy; C3-C6 cycloalkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl, wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C, S-C or C=C bond; or CH_2Ar2 wherein Ar2 is a phenyl ring or a pyridyl ring, each of which may be substituted with 1, 2 or 3 substituents each independently selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, halo, and hydroxy; and

Ar1 is a phenyl ring or a 5- or 6-membered heteroaryl ring, each of which is substituted in the *ortho* position with a substituent selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally

substituted with 1, 2 or 3 halogen atoms, -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, hydroxy, pyridyl, thiophenyl, phenyl, benzyl, and phenoxy, each of which *ortho* substituents is optionally ring-substituted, where a ring is present, with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, carboxy, nitro, hydroxy, cyano, -NRR,
-CONRR, SO_2NRR, and SO_2R; and each of which is, in addition to *ortho* substitution, optionally further substituted with 1 or 2 substituents each independently selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, -CO-O(C1-C4 alkyl), cyano, -NRR, -CONRR, halo, and hydroxy; or a pharmaceutically acceptable salt thereof.

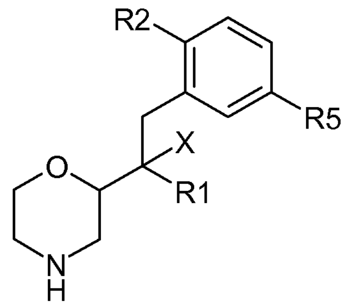
16. (Currently amended): A compound according to claim 15 of formula (IV)



(IV)

wherein,
X is OH or NH_2;
R1 is C1-C6 alkyl ~~(~~optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy optionally substituted with 1, 2 or 3 fluorine atoms, cyano, and hydroxy; C3-C6 cycloalkyl optionally substituted with 1, 2 or 3 halogen atoms and/or with 1 substituent selected from the group consisting of C1-C4 alkoxy and hydroxyl, wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond; or CH_2Ar2 wherein Ar2 is a phenyl ring optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, halo, and hydroxy;
A is N or CR6; R2 is C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, halo, hydroxy, pyridyl, thiophenyl, phenyl optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halogen, C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, or C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, or phenoxy optionally substituted with 1, 2 or 3 halogen atoms; R3 is H; R4 is H; R5 is H, C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkylthio optionally substituted with 1, 2 or 3 halogen atoms, halo, or hydroxy; and R6, if present, is H; or a pharmaceutically acceptable salt thereof.

17. (Previously presented): A compound according to claim 16 of formula (V)



(V)

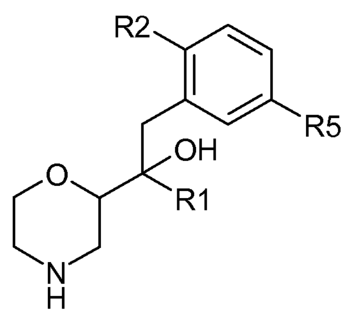
wherein,

X is OH or NH_2;

R1 is C1-C6 alkyl optionally substituted with 1, 2 or 3 fluorine atoms, C3-C6 cycloalkyl wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond or CH_2Ar2 wherein Ar2 is a phenyl ring optionally substituted with 1 or 2 substituents each independently selected from the group consisting of C1-C4 alkyl optionally substituted with 1, 2 or 3 halogen atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 halogen atoms, halo, and hydroxy;

R2 is C1-C4 alkyl optionally substituted with 1, 2 or 3 fluorine atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 fluorine atoms, or phenyl optionally substituted with 1, 2 or 3 fluorine atoms; and R5 is H or F; or a pharmaceutically acceptable salt thereof.

18. (Previously presented): A compound according to claim 17 of formula (VI)



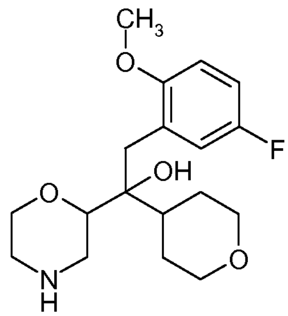
(VI)

wherein,

R1 is C1-C6 alkyl optionally substituted with 1, 2 or 3 fluorine atoms, or C3-C6 cycloalkyl wherein one C-C bond within the cycloalkyl moiety is optionally substituted by an O-C bond;

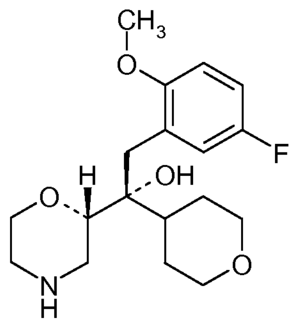
R2 is C1-C4 alkyl optionally substituted with 1, 2 or 3 fluorine atoms, C1-C4 alkoxy optionally substituted with 1, 2 or 3 fluorine atoms, or phenyl optionally substituted with 1, 2 or 3 fluorine atoms; and R5 is H or F; or a pharmaceutically acceptable salt thereof.

19. (Original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

20. (Original): A compound of the formula



or a pharmaceutically acceptable salt thereof.

21. (Previously presented): The hydrochloride salt of a compound according to claim 20.

22. (Previously presented): A pharmaceutical composition, comprising a compound according to claim 1, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient or carrier.

23-34. (Cancelled)

35. (Previously presented): The hydrochloride salt of a compound according to claim 19.

36. (Previously presented): A pharmaceutical composition, comprising a compound according to claim 20, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient or carrier.

37. (Previously presented): The pharmaceutical composition of claim 36, where said pharmaceutically acceptable salt is a hydrochloride salt.

38. (Previously presented): A method for treating attention-deficit hyperactivity disorder, a cognitive disorder, conduct disorder, oppositional defiant disorder, or depression, comprising administering to a patient in need thereof an effective amount of a compound of claim 1, or a pharmaceutically acceptable salt thereof.

39. (Previously presented): A method for treating attention-deficit hyperactivity disorder, a cognitive disorder, conduct disorder, oppositional defiant disorder, or depression, comprising administering to a patient in need thereof an effective amount of a compound of claim 20, or a pharmaceutically acceptable salt thereof.

40. (Previously presented): The method of claim 39, wherein said pharmaceutically acceptable salt is a hydrochloride salt.